

CLAIMS FROM 09/558,877

49. A belt comprising (a) a polishing surface for polishing a workpiece in a chemical mechanical linear polishing system and (b) a side opposite the polishing surface, the belt forming an endless loop, an improvement comprising at least one aperture through the belt so that the aperture is substantially free of a window.

50. The belt of Claim 49 wherein the belt has two substantially parallel edges and the aperture is centered between the two substantially parallel edges.

51. The belt of Claim 49 wherein the aperture comprises a substantially circular shape.

52. The belt of Claim 49 wherein the belt has at least three apertures through the belt.

53. The belt of Claim 49 further comprising a fluid platen positioned adjacent the belt.

54. The belt of Claim 49 wherein the aperture is positioned on the belt to allow monitoring of the workpiece through the aperture.

55. A system for polishing a workpiece in a chemical mechanical polishing process, the system comprising:

a monitor; and

an endless belt positioned adjacent to the monitor, the endless belt having at least one aperture through the belt wherein a path through the aperture from the workpiece to the monitor is unobstructed, the aperture being substantially free of a window.

56. The system of Claim 55 wherein the endless belt has two substantially parallel edges and the aperture is centered between the two substantially parallel edges.

57. The system of Claim 55 wherein the endless belt has at least three apertures.

58. The system of Claim 55 further comprising a slurry dispenser positioned adjacent to a polishing side of the endless belt.

59. The system of Claim 58 further comprising a water mist between the platen and the endless belt.

60. The system of Claim 59 wherein the water mist is operable to remove a platen of slurry.

61. The system of Claim 55 wherein the platen is adapted to apply air to the endless belt.

62. A method for polishing a workpiece in a chemical mechanical polishing process, the method comprising the steps of:

(a) passing an endless belt along a workpiece, the endless belt having an aperture through the belt, the aperture being free of a window; and

(b) measuring a property of the workpiece through the aperture, a path through the aperture for measuring the workpiece being unobstructed by the aperture in the belt.

63. The method of Claim 62 wherein step (a) comprises passing a plurality of spaced apart apertures along the workpiece.

64. The method of Claim 62 wherein step (b) comprises directing a beam of light at the workpiece through the aperture.

65. The method of Claim 62 further comprising:

(c) applying slurry to a polishing side of the endless belt, a portion of the polishing side being adjacent to the workpiece.

66. The method of Claim 65 further comprising:

(d) applying pressure to the endless belt with fluid.

67. The method of Claim 65 further comprising:

(d) removing polishing agent from the aperture on the platen.

68. The method of Claim 62 further comprising:

(e) applying pressure to the endless belt with air.